

TITLE OF INVENTION

PROCESS FOR MAKING

POLYTETRAFLUOROETHYLENE MOLDED ARTICLES

5

COATED WITH FUSED FLUOROPOLYMER RESIN

ABSTRACT OF THE DISCLOSURE

The present invention relates to a molded article of
polytetrafluoroethylene or modified polytetrafluoroethylene having a fluoropolymer
resin coating, the coating comprising a heat-flowable tetrafluoroethylene copolymer
10 wherein the surface of the coated article has a reduced roughness compared to the
molded article prior to coating. The coating for the molded article is preferably a
fused powder, most preferably formed by electrostatically applying a fluoropolymer
powder resin to the molded PTFE article. In a preferred embodiment, the
fluoropolymer powder resin comprises a mixture of heat-flowable tetrafluoroethylene
15 copolymer powder and a polytetrafluoroethylene that has a temperature of
crystallization of at least 305°C and a heat of crystallization of at least 50J/g. The
surfaces of the articles are smoother than the original articles so that they resist
adhesion of chemical contaminants and have applicability for chemical containers and
transport pipes in the rigorously clean environment of the semiconductor industry.